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NEURO-APOCALYPSE 3: THE MONKEY WRENCH

To my father, a random Nemu generator.

That which, in the language of religion, is called 'this world' is the universe of reduced awareness, expressed, and, as it were, petrified by language. The various 'other worlds' with which human beings erratically make contact are so many elements in the totality of the awareness belonging to Mind at Large¹

Aldous Huxley

The limits of my language mean the limits of my world.

Ludwig Wittgenstein²

I don't know why we are here, but I'm pretty sure that it is not in order to enjoy ourselves.

Ludwig Wittgenstein³

A monkey stuck in a room, looking wistfully at the exit in the ceiling and an unpromising stack of boxes in the corner, is trapped not by the environment but by a lack of imagination. The greatest ape is in a similar trap. We swing around the confines of our frames, but despite legends of an exit, it seems beyond our reach. The legends became demoted to fairytales in the Age of Reason, and even Wittgenstein, who

understood the intricacies of the frame better than most, finished his masterpiece with 'what we cannot speak about we must pass over in silence', before abandoning philosophy for a decade. Our definitions set the boundaries, our grammar orders relations between these items, and we fail to see that the environment can be manipulated, that sticks can be pulled out of the frame and out of context, and fashioned into ladders to other dimensions.

Truly exceptional thinkers are not limited by language. Einstein, for example, noted how:

words or language, as they are written or spoken, do not seem to play any role in my mechanism of thought. The psychological entities which seem to serve as elements in thought are certain signs and more or less clear images which can be 'voluntarily' reproduced and combined. The above mentioned elements are, in my case, of visual and some of muscular type. Conventional words or other signs have to be sought for laboriously only in a secondary stage, when the mentioned associative play is sufficiently established and can be reproduced at will.⁴

Some brains work, or rather play, differently. Daniel Tammet, for example, speaks nine languages including the famously difficult Icelandic, which he learned in a week as a challenge before giving a live TV interview, but his real talent is numbers. He calculates to 100 decimal places instantaneously, and he once publicly recited π to 22,500 decimal places, clearly enjoying the five-hour stream of numbers issuing from his mouth, breaking rhythm only to go to the loo or to eat a banana.

Neurologists are not sure how he does it, but his relationship with numbers is not normal. For most people, calculation involves conscious manipulation of shared symbols, such as '6' and '+', but it is a visual affair for Daniel. Number 1 is a bright flashing light, 5 is a clap of thunder, 89 is like falling snow. Irrational numbers have a special beauty for him, but when shown an incorrect version of π , a polygraph recorded an unhappy spike in his pulse, skin conductivity, and other physiological parameters. When multiplying, he sees two shapes creating a third between them, and for complex calculations he moves rapidly through a landscape to settle on a solution.

This type of perception, where sensations become mixed up, is called synaesthesia. Colours are felt, emotions are tasted, patterns are heard and concepts are seen; the usual sense modalities run together. It is familiar to acid-heads, astral projectors, and schizophrenics, and can occur immediately before epileptic fits. It is also common in autism. As a toddler, Daniel showed typical autistic traits such as all-day

screaming fits and chronic antisociability, but after a series of severe epileptic seizures, the more extreme symptoms passed and he began to work with his synaesthesia. Today Daniel is almost unique, combining the prodigious talent of savantism with an outgoing and relatively normal personality.

Autism, which is often accompanied by epilepsy,⁵ is an example of a simultaneous discovery. It was described independently by both Leo Kanner and Hans Asperger in the early 1940s, and given the same name by both (from *autos*, meaning self). Autists are typically seriously impeded in relating to others, because abstract concepts mean little or nothing to them. Symbols, such as numbers for example, are often beyond them, and in severe cases they are incapable of learning language. The category is an alien idea, and so many autists cannot make a general rule from a set of examples; Daniel, for example, is unable to tell right from left.⁶ Metaphor doesn't mean anything, so 'marble cake' sounds too hard to eat,⁷ and 'George Bush is no rocket scientist' is just a statement of the obvious.⁸ The personality of others is another abstract concept, and people on the autistic spectrum are often highly antisocial, and unbound by social rules. Daniel describes how he kept asking a woman questions about her son, fascinated by the subject of this recent suicide but unaware of the effect of his curiosity.

An autist might see a series of images, a green patch, a brown patch, a leaf, a trunk, a branch, a bird's nest and so on, but the parts do not coalesce into what most people call 'a tree'. Autists typically become fascinated with parts of objects, which do not become objects in their own right, defined against the background. Many never manage to systematise the world, and it remains 'a confusing jumble of events, people, places, sounds and sights, without clear boundaries.'⁹ Some learn routines to navigate through it, and can be compulsive over maintaining them. Daniel counts his clothes and weighs his cereal in the morning, presumably because a concrete '80 grams' means more to him than an abstract 'the right amount', but things can still become overwhelming. The supermarket, for example, is a constant onslaught of information about prices and quantities, and he prefers to avoid it. The delicate balance of an autistic mind can be upset by anything

unplanned, such as an unexpected visit, new cutlery,¹⁰ or having to sit in a different chair from usual, and autists can react by spinning out.ⁱ

I had the honour of teaching an autist, and her world was fascinating. Mari-chan would become totally engrossed in the topology of her desk, not even registering a question I asked her, and then three minutes later, suddenly and unprompted, she would answer someone else's question from two minutes before. Mari-chan was also a virtuoso pianist. Though it is very difficult to teach severely autistic people anything abstract, something concrete like a piano is a different matter, and here autists can come into their own.

Whilst savantism is rare, one in ten shows some special heightened ability, and perhaps more would fulfil their potential if we stopped treating anything not normal as abnormal, and made space for their worlds. Acorn Outdoor Ornaments put the skills of non-savant autists into sculpture. One autistic artist is Guy, who can neither read nor add,

ⁱ Autism, like many things, is more of a spectrum than a dualism, from full-blown autism through Asperger's syndrome, compulsive tendencies, dyslexia and Attention Deficit Hyperactive Disorder, in which a mind is fascinated by what it finds interesting, but unmoved by the beige happenings in the rest of the world and the school curriculum. Such people often develop their own ideas, and a high proportion of artists and CEOs show ADHD traits. Such a mind may not fit into normal society if not channelled, and so people with ADHD are over-represented in prison as well.

Many of the heroes of our story have exhibited autistic traits. Ampère was a classic absent-minded professor, who is said to have forgotten by the evening a dinner invitation Napoleon made in the afternoon. Newton was utterly uninterested in other people, making only one acquaintance at university, where he spent most of his time in his room. In later life, his one attempt at a dinner party fizzled out when he went to fetch something, and was found hours later in his room, hunched over his desk. He showed no interest in women, and was buried in the virgin's graveyard, though he was said to be particularly happy with the job he ended up in, sending forgers to the gallows. His suspicions concerning others lead to a paranoid nervous breakdown when Leibniz invented calculus, which he had already developed but kept to himself. He would probably have kept gravity to himself as well if Edmund Halley hadn't visited him three years after he had invented it to seek help solving an astronomical problem. To force everything in the heavens and on earth into a rigid, tight frame, from which the most minuscule detail would not be allowed to escape free and random, was an underlying need of this anxiety-ridden man,ⁱ notes his biographer, and Newton was single-minded about it. He would work continuously if his servant did not remind him to eat and wash, and he forgot to sleep for days until he noticed his concentration was failing. Tesla was another compulsive, who spoke eight languages, and was obsessed with hygiene and the number three. He would only stay in a hotel room divisible by this number, and he ate the same meal every day with the same number of peas at the same seat at the same restaurant of the Waldorf Hotel, using eighteen (3 x 3 x 2) napkins to polish his cutlery. Perhaps his daily trance on the couch was an attempt to deal with the chaos. A mind which is both chaotic and proactive almost forces a meditation to remain calm.

but makes crazy robots, like his electric dog that barks, wags its tail, and urinates.¹¹

Autistic savants find order not in categories but on another level, fitting detail into an enigmatic system and becoming exceptional in various areas. Like Daniel, many savants can calculate in seconds the day of the week of any date in history, intuitively learning deep rules governing calendar structure without being able to communicate them, perhaps not even consciously formulating them.¹² Others are artistic geniuses, such as Stephen Wiltshire, who sketched a detailed skyline after a single helicopter ride over London. Autistic artists rarely show any interest in the art of others, nor in opinions on their work.¹³ There is a linguistic prodigy who learned 17 languages but could not cope with his schoolwork,¹⁴ and a basketball genius who lands shots flawlessly from all over the court.¹ Many become musical geniuses, especially those born blind (presumably because they are spared a great deal of information overload). Blind Tom could play Fisher's *Hornpipe* with one hand and *Yankee Doodle* with the other whilst singing *Dixie*. He could play behind his back and with his hands inverted. He knew 7000 tunes, but less than 100 words, and was given away for nothing as a child along with his mother at a slave auction.¹⁵ Another blind pianist is Derek Paravicini, who was playing with hands, elbows, and forehead by the age of two, and can play any song perfectly after one hearing. Whereas good musicians can hear what note is being played, and exceptionally talented individuals can listen to three instruments playing together and name all three notes, Derek can play back on his keyboard every note of a 50-piece orchestra chord. It may be a synaesthetic relationship with sound that allows him to pick out individual notes from a complex musical landscape. His brainwaves spike at a note out of tune, much as Daniel's physiology reacts to a badly made π .

Neither of these pianists are musical robots. Blind Tom made his own compositions, and whilst Derek plays jazz brilliantly, his incorrigible habit of improvisation makes for some bizarre renditions of classical pieces. Autists are often witty and creative; indeed one typical symptom is the creation of new words. They are also uncommonly happy. Lunchtime at my friend's house is great fun, his autistic nephew mixing juice with his beans, running around the table and flinging biscuits around the room in delight. He absolutely loves it, and he is fascinating to me. He barely registers my existence. What he is really

¹ Youtube it!

into is water, and he spends two or three enchanted hours every day, splashing in a tank and shouting with joy. Philosophy means nothing to him and neither does irony, but his direct experience of the world is totally sincere; if the point of life is to be happy, he is very successful indeed.

The autistic world must be incredibly rich, even overwhelmingly so in comparison to ours, which is stripped of an enormous amount of detail by the category. For me, a desk is just a desk, but for Mari-chan, it is a landscape to get lost in. Musical savants can, like Mozart could, retain every note, harmonic and chord of a piece of music after one hearing.¹⁶ One autistic could solve blank jigsaws at the age of three; his talent was channelled into weaving, and he now enjoys making incredibly complex textiles, though language means nothing to him.¹⁷ The autistic mind conserves richness, and this makes savants so special. Most of us see the skyline, but Stephen sees every building. The normal ear hears music, but Derek hears every note. Tom Cruise spills a bunch of toothpicks, but Rain Man sees each individually and immediately, and 246 bubbles into his conscious mind.

The inspiration for Rain Man is the remarkable Kim Peek, who was reading before his second birthday and has now read a good portion of the Salt Lake City Library. Kim reads one page with each eye, turning the page in under ten seconds and retaining 98 percent of the information; he is able to answer obscure questions on the subject years later. Again, it is not known how his brain does this, but it is clear that the category does not obscure the detail. In one test, Kim was read a series of words, all of them either 'sweet things' or 'tastes'. 'Chocolate', 'cake', 'bitter', 'honey', 'sugar', 'sour', 'taste', 'candy', and others were said, but not the word 'sweet'. Later he was asked if he had heard the word 'sweet'. 98 percent of subjects fail this test, because 'sweet' would make sense in the context, but for autists, 'sweetness' makes no sense in the first place. Words remain unbound to the background. Even non-savant autists recall more words than most people, and in the original order, whereas most people run through one category then the other.¹⁸

Like many autists, Kim's brain lacks the corpus callosum, the main connection between the hemispheres integrating information. The fibres which would normally end in the corpus callosum continue on to connect with distant neurones in various parts of his brain, and perhaps this explains the bizarre way he soaks up and systematises data. For example, when asked about Beethoven's fifth symphony, he sang the opening '*Da Da Da Daaaah*', which called to his mind the 'dot

dot dot dash' of the letter 'V' in Morse Code, which relates back to the number five via Roman numerals.^{19|20}

There is a system here, but it has nothing to do with logic or causality. It is much closer to the language of dream interpretation, where non-rational correspondences point to hidden issues beneath the surface; it is the language of and divination. In magickal ritual, the mage uses a certain incense, specific numbers of candles, colours, music, names, postures, and so on. Whilst there is no causal relationship between the colour green, the number seven, the planet Venus, and the smell of roses, all align the mage with the specific energies of *netzach*. Ritual works through the symbols to get behind the limits of the rational mind, making connections on a deeper level and channelling the hidden power of the unconscious. A spell is a new spelling, familiar symbols in novel combinations; a grimoire is a grammar with different rules, redefining the limits in accordance with will. Magick is a disease of language, as my Uncle Al used to say. 'Abrahadabra' doesn't make sense, but to an initiate with his brain primed and intention focused, a magick word musters chaos into order, and from there into form. The genius of savantism, which Daniel believes is available to everyone, lies behind the categories, behind the ego and the organiser. It arises suddenly and spontaneously.²¹ We have seen in *Science Revealed* how insights bypass the logical mind, and the unconscious speaks in the language of image and poetry. So how can this zone be accessed?

Organisation is everything in the brain. There may not be a single protein in the human noggin that is not in a chimp's, and if size were everything, Neanderthal man would have kicked Magnus Magnuson's master-arse with his bigger brain.²² Savant skills sometimes emerge when the brain is reorganised, with degenerative disease, for example. Frontotemporal dementia victims lose the ability to recognise faces and form meaningful sentences, but some rapidly develop startling musical and mathematical skills. Someone may be able to draw an object extremely accurately, but not know its name. A whack to the side of the head may also do it, as in the case of Orlando Serrell, who developed

ⁱ In non-autists, the corpus callosum is smaller in males than in females, which may explain why women often have broader vision than men, and are better able to rethink when more information becomes available. Men tend to focus more on the details important to them, sometimes forgetting the greater scheme of things. Low-level autistic traits, including antisociability and obsessive singlemindedness, are more common in men than women. Autism is much more common in men than women, and as autists produce more testosterone, and develop physically faster than normal people, it has been argued that they are extra-male.

calendar skills and prodigious memory after being knocked unconscious by a baseball.²³

However, there are softer ways to reorganise a brain. Meditation gradually extends the will into the unconscious, bringing under control physiological systems usually considered involuntary. Biofeedbackⁱ subjects can learn to control muscle tone and blood pressure, and even to fire single neurones.²⁴ Meditators have been measured slowing the heart rate right down,²⁵ and in *gTum-mo yoga*, seated monks raise their skin temperature by up to 17 degrees whilst their core temperature remains stable.²⁶

Concentration is magickal stuff. McDonald Douglas Aerospace began a series of experiments at Princeton to investigate how sensitive equipment might respond to the pilot's mind, and twenty-five years and tens of millions of trials later, the former dean of the School of Engineering is convinced that mind can affect one in every ten thousand random events.²⁷ Experimenters work with nine different processes producing large numbers of data, including a linear pendulum, a water fountain, and a cascade of 9,000 marbles tumbling past pins into trays. Subjects attempt to shift the data (ie. the water or the marbles) to the left or the right with the mind, and they were successful in all setups. Subjects also appear to be able to change the molecular shape of DNA in test tubes in either their hands²⁸ or distant labs, and doctor solutions and gas discharge systems elsewhere.²⁹ John Hagelin's work is particularly interesting. He is a Harvard fellow, a former researcher at both CERN and SLAC, and winner of the Kilby award. As developer of one of the most successful super-string theories, he was one of the most cited physicists of the 80s. He has repeatedly predicted drops in crime statistics, as measured in police data, when large groups of transcendental meditators spend weeks practicing in a randomly selected city.³⁰

Probability theory predicts that 200-digit strings of randomly generated 0s and 1s should have 100 repeated digits, but research reveals that most subjects can increase or decrease this number in accordance with will. There is also a statistically significant effect of beginners luck. Subjects tend to score best on their first attempts, the second attempt often reverts to randomness, and the effect begins to

ⁱ Biofeedback is a technique where the pulse, muscle tone, brainwaves and other autonomic data is expressed on a computer screen, and the subject tries to shift the picture, pushing down the pulse or altering her brain-waves. It has proved beneficial in various disorders, from respiratory and circulatory problems to incontinence, migraines, and ADHD.

return on the third or fourth trial. It is the thinker, conscious of such things as impossibility, which obstructs the effect. Magickal power stems from deeper parts of the brain, but thoughts cripple it, even the thoughts of others. Scores increase when lab technicians are talking about resonance, and drop during routine lab meetings, even though the subject cannot hear them. People also produce characteristic results. Men are better at shifting the direction, women score higher amplitudes, and mixed pairs concentrating together are the best. Individuals might, for example, be good at increasing but not decreasing the number of repeated digits, and according to the figures, an individual's characteristic signatures can manifest in the control string, even though they are not concentrating on them. This has far-reaching implications for reality, and particularly for our current philosophy of reality. If the control is unconsciously controlled, its validity comes into question, and so does the whole enterprise of science.¹

René Péoc'h neatly removed the thinker from the set-up, using chicks rather than humans, tricked into thinking that a robot was their mother (chicks imprint upon the first moving object they see, and follow it faithfully until maturity). The robot is fitted with the device we call a random number generator, and it is free to roam, rotating through a random angle and moving forward a random distance repeatedly. In control experiments with an empty cage in the room, the robot wanders randomly, but when chicks are put in the cage it wanders closer to them. Péoc'h confirmed his findings with other experiments. He exploited an unimprinted chick's preference to be in the light rather than the dark by fixing a candle to the robot, and again the robot wandered closer to the cage. With rabbits, which were scared of the robot, it avoided the cage, but if the rabbits were hungry and the robot had food on it, it wandered closer again.³¹ His studies with human volunteers appear to show that intention can influence the movements even if a random string of data is generated six months earlier, recorded onto a CD, and later fed into the robot. Statistical analysis shows whilst

¹ This is probably a good point to mention the anti-credo of the Church of Nem. We harken to all, for the mouths of the mystery are shaped funny, but we do not believe. The data cited here has been collected, ostensibly in good faith, by scientists and professors with the same or better credentials than those who make the rest of our scientific observations. They could be deluded in their conclusions, we all could, and scientists often are. Whattayagonna-do?

the second part of the string, the part not used in the experiment, is truly random, the first part is skewed.³²

Random number generators may be nothing of the sort. They respond to intention, and they also produce more ordered strings at holotropic breath-work workshops and shamanic ceremonies.³³ The Global Consciousness Project monitoring 65 random number generators ticking over in labs around the world revealed shifts towards coherence when large numbers of people focus their attention on something. One shift was Princess Diana's memorial service, which an estimated 2.5 billion people tuned into.³⁴ Other television extravaganzas such as the Academy Awards, the Olympics, and the O.J. Simpson verdict produced blips, as did the NATO bombing of Yugoslavia and the hung American Election. There is also an annual blip every New Year's Eve. Really big events, however, seem to influence the numbers even before they occur. Order began emerging four hours before the 9/11 attacks, and 24 hours before the tsunami.³⁵ Is something being organised before it is expressed, like an opera singer taking a deep breath?

If, as Heisenberg said, everything measurable is subject to random fluctuations, and if 'random' is really nothing of the sort, what does this mean for our physical world? The quantum world is a mysterious wavy gravy; it forms lumps wherever we stick our spoons. Unobserved, it is undecided, but when we question it, it makes up its mind what it is. At one scale, the spin state of an electron is decided, which affects the molecule's geometric and electromagnetic properties. This in turn influences its movements.

What can the brave do in this strange new world? Our health, at the very least, can be improved. The effects of meditation on mental health are well documented,³⁶ and U Ba Khin describes how relief of TB symptoms can occur within days of starting Vipassana meditation courses. The Brownian motion of antigen and toxin molecules is a 'random' statistical processes, perhaps this can be affected. He also states his 'firm belief that the Nibbana Dhatu which a person in true Buddhist Meditation develops, is power that will be strong enough to eradicate the radioactive poisons, if any, in him.'³⁷ Radioactive decay is another random process, as is the motion of radioactive particles within

ⁱ Helmut Schmidt's experiments tell the same story, that these processes are not bound by time's arrow. Bell's quantum experiments conclusively established that if we are going to use time's arrow as part of our model of reality, we must accept that information can travel the wrong way along it, ordering the conditions of a system even before an observation is made.

cells. Might mindfulness offer hope for survivors of a nuclear war? It sounds weird. It **is** weird. But as the Brazilian saying goes - better a frog with wings than twenty rabbits in your bedroom.

Almost nothing is known about the mechanism linking consciousness and reality. We know a little more about the effect of concentration on the brain. Brain scans of Franciscan nuns and Buddhist monks reveal that prayer and meditation reduce activity in the parietal lobes at the side of the head.³⁸ This area constructs objects from incoming sensory information, and defines them against the background. It is here that leaves, branches, and a trunk become 'a tree'. One of the items pulled together is the self, and the parietal lobe also spatially relates that 'me' to the environment, so we can find our way around it. Damage in this region often causes people to reach for objects inaccurately, to have difficulty integrating components of the visual field, and also in assembling simple objects.³⁹ Meditation reduces parietal lobe activity, weakening one's sense of self; this might explain the subjective experiences of merging into the process of meditation or feeling at one with God or ultimate reality.

The ego is the first inkling of independent existence, but it is only one part of the process of setting limits. Parietal lobes draw lines and define objects, whether cats or castles, one's self or one's tribe. This is *YHVH's* domain, and though He imagines Himself to be the Creator, He is merely the divider. He introduces Himself as God Almighty, but His power is limited. Created along with the rest of us, His urges can be brought under control, and when the limits He sets are dissolved, the work of the infinite powers begins to make sense as a whole.¹

Items carved out of space in the parietal lobes are categorised in the neighbouring temporal lobes. It is here that 'cake', 'honey', and 'sugar' become 'sweet'. Injuries can interfere with the organisation of words and pictures into groups, and causes people to forget the names of things. When frontotemporal dementia patients develop savant skills, it is here that is disrupted, and Orlando Serrell's blow landed here as well.⁴⁰ That Shakti pat from a baseball bat seems to have altered function across wide areas of his brain, including the limbic system, which lights up happily when he calculates dates. The limbic system

¹ Now then, now then, now then... When *YHVH* forms Adam, He also creates the soul. Is Gnemu the Gnostic so rabidly heretical as to reject even this? Yes, he is. Years before taking up the vestment of the Holy Church of Psychedelia, he was a Buddhist, and he was struck by the Buddha's wisdom on the subject of *anatman*, 'no soul', or perhaps 'this is not my soul'. 'This' is part of *samsara*, the illusion which causes suffering, and it arises and passes like everything else this side of *nirvana*.

governs emotion, and the extensive links it has with the temporal lobes bring an emotive dimension to words and ideas. Links form when someone makes you angry, for example, so when you see that person again, or another person you categorise along with him, you might feel the ire even before you have listened to more of his rot. This is why one hippy talking claptrap makes all hippies sound like idiots. Prejudice is neurologically inevitable.

Temporal lobes function irregularly during certain types of epileptic fits, the details of which have much in common with mystical experiences, including visions and sounds, a feeling of déjà vu, intense emotion from terror to elation, convulsion, collapse, or loss of consciousness. People with temporal lobe epilepsy are more religiously inclined than most, and brain scans suggest that this lobe is involved in religious experience, specifically in conjunction with the limbic system.⁴¹ Apparently, intense love for God is not a rational but an emotional experience. The border region between temporal and parietal lobes is concerned with abstract concepts, and this area is inhibited with meditation.⁴² We can guess, therefore, that objects become less tightly bound to their categories, and therefore our assumptions concerning how things are do not hold so tight.

Michael Persinger's 'God helmet' induces the sensation of a spiritual presence by electromagnetically stimulating the temporal lobes. The Orthodox Church of Science takes this as evidence that mystical experiences such as St. Paul's vision (*apocalypse* in Greek)⁴³ derive from irregular brain function. Belief in God is, therefore, a function of neuropathology, and religion is the institutionalised side effect of the malfunctioning brains of Mohammed, Buddha, and Jesus. Your good Nemu, on the other hand, is tinkering with the microwave to try and make it work with the door open and his very reverend head inside.

Whilst prayer inhibits the temporal and parietal lobes, activity in the frontal lobes increases. The forebrain, which is proportionally much larger in great apes than in other primates,⁴⁴ is activated whenever attention is focussed on something. It is the part of the brain which manipulates symbols and language, and seeks similarities and differences between events. Adam and his descendents reside here, naming the objects constructed in the parietal lobes, assign meaning to experience, sinking into despair, writing poetic lamentations.⁴⁵ The ego cares nothing for this. It simply translates unconscious imperatives into urges, sex and survival, basically, increasing one's power and overcoming rivals. We can control ourselves, however, postponing immediate gratification for long-term benefits, because of the executive functions of the forebrain, the decisive veto of the conscience. It

remembers pain and learns from it, and it guides social behaviour. It refuses the amorous advances of a kickboxer's girlfriend when it is functioning properly. When inhibited by Jack Daniels, however, the potential break up of your teeth or your family can seem less important. Lesions here can lead to risky, taboo breaking behaviour. My mum once saw a man in Accident and Emergency groping wildly at the breasts of the nurses trying to save him after his brain had been starved of oxygen for some minutes.

The conscience is our curse and our blessing. It causes all manner of worry, but life is an ugly affair without it. Exercising these lobes may help meditators control their urges, freeing them from habits and addictions, and prompting judgements more in line with their consciences. Indeed, meditators questioned seem less easily pressured into doing things they disagree with,⁴⁶ promising hope of escape from Milgram's nightmare.

The neurology of opposition arises in frontal lobes, with questions posed and problems solved. Interestingly, damage to the forebrain does not usually interfere with measured IQ. IQ tests, and nearly all examinations, assess what is called convergent thinking, where items are organised and categorised, and known rules are applied to them. These are the functions of the temporal and parietal lobes. The divergent thinking of the forebrain is completely different, a creative process where parts of the whole are abstracted, manipulated, and put through a series of steps. It produces novel solutions to problems. It finds different ways to use familiar items, whether Lego bricks or F sharps.

Breaking the frontal lobes down further, the left prefrontal cortex is concerned with language, determining how nouns and verbs work together. The right side goes one step further into abstraction, into the workings of other people's brains. People brain-damaged in this area are measurably easier to trick, because they cannot get inside someone else's head.⁴⁷ This right prefrontal cortex allows for both empathy and Machiavellian intelligence, both quintessentially human traits, but not necessarily healthy in excess. Meditation shifts activity from the right to the left prefrontal cortex, from the workings of other minds to the workings of the world, and it appears to be beneficial, because the shift correlates positively with antibody production.⁴⁸ Meditation moves the mind towards its place in the scheme. The prefrontal shift could be described as minding one's own business. The shift from temporal and parietal lobes to the forebrain moves focus from the individual and its category to the meaning behind the whole.

The main difference between the nuns and the monks is that Buddhist visualisations activate the visual cortex, whereas prayer activates language areas. This is as we might expect given the practices, and it calls to mind the differences between Eastern and Western perspectives on the Word. Franciscan nuns climb a wall of words into heaven; Buddhist monks silently burrow under it into nirvana. Pentecostal Christians, however, crash noisily through the wall, speaking in tongues and decreasing rather than increasing frontal lobe activity. Their parietal lobes are not inhibited, and they do not lose their sense of self; the Pentecostal subjective experience is of the Holy Spirit taking control of the body. The thalamus is more active, but this area is not well understood. It appears to be involved in conveying sensory information to the various lobes, and it is more active with the monks and nuns as well.⁴⁹

The brain is a complex organ, and it may not be important exactly how it is shaken, as long as certain patterns are disrupted. Meditation involves brain regions concerned with falling in love, bodily sensations, and more besides, and this dilettante ne(m)urologist is not qualified to go very deep into it. Simply put, there is far more going on than 'Om'.

A lot of good brain-doctoring goes on in the monastery, but most of us have neither the time nor the patience to do the practices; my mum, for example, described a Vipassana course as the most boring experience of her life. It may take many dedicated years to engineer a mystical experience, and with busy lives and minds accustomed to immediate gratification, most Westerners setting out on the path never experience ego-loss, never experience much more than stiff legs. Psychedelics, however, can dissolve the boundaries in minutes, and though the mechanism is different, the subjective experiences have much in common.

The first Westerner to publish his experiences with magick mushrooms described 'the five senses disembodied, ... all of them blending into one another most strangely, until the person, utterly passive, becomes a pure receptor, infinitely delicate, of sensations.'⁵⁰ Like meditation, psilocybin decreases temporal and parietal lobe activity, and the world becomes a more fluid place. Lying under an apple tree on mushrooms, one becomes absorbed into it, can feel the tree melt into the earth and air around it, into the process of its growth and the work of the whole intelligent cosmos. Inhibition of occipital lobes produces trails, distortions, vivid colours and all kinds of fun in the visual field, but psilocybin also stimulates the frontal lobes, and reveals the profound meaning of the apple tree.⁵¹

NEURO-APOCALYPSE THREE

Ketamine limits information arriving at the parietal lobe by blocking the NMDA-PCP receptor,⁵² and the psychonaut typically melts into the whole (or the K-hole). This receptor is widely distributed in the brain, involved in language, thought, memory, emotion, and perception,⁵³ and all of these functions are disrupted. The individual, his concerns, and his concepts disappear. Ketamine, however, also inhibits inhibiting neurones, so some activity is increased rather than decreased, particularly that involved with picture and sound. The internal cinema can roll whilst the rest is snoozing, and the camera follows Indiana Jones into the lost temples of the deep unconscious. Something similar happens in dream, which involves blockage of same receptor.⁵⁴

Ketamine is fascinating, but such widespread inhibition can turn K-fiends into barely-conscious zombies, especially with prolonged use.

It has been said that the most serious side effect of nitrous oxide is the writing of copious reams of philosophy. It works on the same receptors, and pushed back the veil for William James:

the ego and its objects, the *meum* and *teum* are one...every opposition, among whatsoever things, vanishes in a higher unity in which it is based...God and Devil, Good and Evil, Life and Death, I and Thou, Black and White.⁵⁵

LSD resembles serotonin in its shape, but there is no consensus on how it works. Eggheads and acid-heads alike agree that it is extremely powerful in teeny tiny doses, suggesting that it does something funky at a high level of the brain. It throws the psychonaut into a synaesthetic landscape, as Alan Watts discovered:

The usual *gestalt* mode of perception, where the figure is noticed and the ground ignored, seems to be modified. One sees instead the figure-ground as a totality... Conceptually, it appears obvious that such opposite categories as being and non-being, light and darkness, good and bad, solid and space are related mutually in the same way as front and back. This may come as a shock to the kinesthetic sense, a threat to one's identity, and a disturbance to standards and habits of judgment. The individual unused to this situation may interpret it onesidedly: he may feel utterly helpless, wondering whether he can continue to think logically or even speak correctly, or conversely, he may imagine that he is God almighty, in charge of the whole universe.⁵⁶

I once saw this happen to a hippy at a beach party, who spent the entire night running around shouting that he was Jesus, God and various other things, including 'I'M EVERYTHING!' He was naked, of course, and like Adam he was not ashamed, but people soon lost patience with him and started shouting back. The dogs, however,

chased him happily around the sand until the morning, when he finally collapsed in a heap for a well-earned day of rest. I bumped into him a few days later and found him sunburnt, humourless, and unfriendly, apparently no better for his temporary deification.

Many orthodox mystics complain that mind-bending paths are not the right paths because there is no shortcut to God, but anyone experienced with entheogens knows that this path is long and hard. The hippy had a big whack of gnosis, with all the components of a textbook mystical experience - shedding concerns and conditioning, realising hidden truths, being overwhelmed by newness. But what about when it wears off?⁵⁷ My beloved ayahuasca revs up the occipital and frontal lobes⁵⁸ and offers a new perspective on your problems, but it does not solve them. It gives brilliance to the talentless, comfort to the nervous, and grace to the hopelessly formal, but it snatches these gifts away. It dissolves the lines, but they form again. Plenty give up smoking after a few glasses of ayahuasca, only to start again after a few glasses of beer. We return to abusive relationships and destructive cycles. The only guarantee with ayahuasca is that if you fail to put into practice what you learn, you will suffer. Many continue without ironing out their creases, only to enter a hell of perpetual regret every session, and it can be easier to give up the practice than break ingrained habits. Having soared to the heights, you slip back into the mud, and it is up to you to drag yourself out. But at least you know which way to crawl.

Ayahuasca contains DMT, which works in a different manner to LSD, mescaline, and psilocybin. It does what might be described as fiddling the neurological graphic equaliser, increasing theta waves, which are those associated with meditation, relaxation, and the hypnogogic state. At the same time, alpha waves increase, which keeps the lucky owner of the brain aware and awake.⁵⁹ The greatest theta and alpha shifts are in the left temporal lobe, a region concerned with verbal organisation, memory, and speech. With ayahuasca, words are freed from the normal rules, and poetry pushes the limits of conception. The language shamans use is called 'language-twisting-twisting',⁶⁰ a set of metaphors to express the ineffable. Daime teachings are 'received' as songs, from the depths of the unconscious or the lips of spirits, depending on where you draw your lines, but whatever the source, they arrive fully formed, with melody and message, rhythm, rhyme, and reason. A creative wit breezes through the warm afterglow of a session, where every word and gesture is loaded with significance. The profundity persists after the brew has worn off. With time and determination, the ayahuasca worlds and normal worlds come closer, and the pulse of life and the wisdom of the whole are plain to see whenever you remember to look, even without a drink.

NEURO-APOCALYPSE THREE

Naked hippies seeing the light are a relatively new phenomenon, but there is nothing new about mixing potions and devotions. The poison path goes back through the ancient world and beyond; we were probably using medicines even before we were human, as drug taking is another trait we share with chimpanzees.⁶¹ It is a kind of heresy to speculate that the ancients took drugs, but the opposite is just plain silly. There have presumably always been people with an inborn desire to smoke plants, to fire powder up their noses, to drink brews and eat roots that make you gag. When botany was the science of the day and the long arm of the law was shorter, what would stop you?

The red and white toadstool beloved of leprechauns is the fly agaric, and it was used all over the pre-Christian world as a portal into the dimensions where such fellows exist, along with monsters, gods, devils, all the members of the celestial court and the castles on clouds they live in. It is still used by Siberian shamans today. Magick mushrooms were used at least as far back as the late Neolithic period, when they were drawn growing from the bodies of medicine men in cave paintings.⁶² Robert Graves argued that they were the secret ingredient of the sacred *kykeon*, a drink consumed at the Eleusinian mysteries, and indeed, the food and wine taboos, including a full-day fast before the initiation, resemble those preceding Mexican mushroom rites. Graves believed that the imagery of Heaven and Hell was born in Eleusis. *The Old Testament sheol* is simply the silent abode of the dead, but in Christian mythology Hell becomes a Dante-esque safari park packed with astral fauna. Around the time that *The New Testament* was being written, anyone who was anyone, from Plato to Hadrian to Marcus Aurelius, travelled from all over the Hellenistic world to be initiated in the 'shrine common to the whole earth, and of all the divine things that exist among men'.⁶³ The drama of Persephone was performed, and as she travelled to the underworld and back, visions were seen, described variously as terrifying, exhilarating, unexpected, transformative, unforgettable, and 'inaccessible to rational cognition'. As Pindar put it:

Blessed is he who hath seen these things before he goeth beneath
the hollow earth; for he understandeth the end of mortal life, and
the beginning of a new life given of god.⁶⁴

Other classicists have argued that *kykeon* was ergot. There is no doubt that something curious was consumed, because in 415BC an Athenian noble was fined for serving it up at a party, in one of the earliest drug-busts.⁶⁵ In the fourth century, after 2000 years of mind-bending, the mysteries were outlawed by Christian moralists. Generations later, the same type of Christians attempted to ban

ayahuasca and peyote in the New World, but with less success; they are still used in shamanic rites today.

The blue lotus was a sacred symbol for the Egyptian nobility, the flower which rose out of chaos at the beginning of time. This euphoria-producing flower also pops up in other traditions. The first port of call of the sailors of *The Aeneid* is the Island of the Lotus-eaters, where they eat and fall into a deep sleep until the hero awakens them.⁶⁶ 'Blue Lotus' is also the name of the body-swapping character who crosses into the underworld in the Chinese classic *Monkey*,⁶⁷ and there may be a hint in the name of the sage *Padmasambhava* (lotus born), who introduced tantra to Tibet. Tantrikas seek transcendence by using, rather than renouncing, the good things of the earth.

Cannabinoids bind to the same receptors as nitrous oxide and ketamine, and this noble quality has long been exploited in religious rites.⁶⁸ Mao Shan Taoism is derived from scriptures written (or rather received from a deceased female sage) by mediums using cannabis incense.⁶⁹ Hemp is sacred in Japan, and the hemp ropes of shrines were ritually burned once a year at what must have been a pretty groovy bonfire festival. The boss stoner is Lord Shiva, the god of dissolution, of yoga, and of ganja. The word 'ganja' is related to the holy Ganga, or Ganges river, which descends from heaven through Shiva's dreadlocks and washes away the karma of those who bathe in it. Shiva once spent 10,000 years smoking in a Himalayan cave. According to one version of the myth, he found a stranger in his house when he finally came home, and cut off his head. 'You dopey hippy,' said Parvati (in Sanskrit), 'that was the son you sired before slinking off to get mashed.' Shiva went looking for another head to rectify the situation, and the first he found belonged to an elephant, so Ganesha ended up with a trunk. Sadhu renunciants follow Shiva by giving up everything they own, including their families and their clothes, and smoking chillums religiously to forget the mundane lives they left behind.

Lord Shiva is sometimes sculpted with the highly potent datura flower in his hair, but the quintessential Hindu potion is *soma*. *The Rig Veda*, parts of which date back to the Bronze Age, contains hundreds of verses concerning *soma*, how to press and sieve plants, how to store it and drink it, and what it does.⁷⁰ What it was has been forgotten, but it is described as exhilarating, intoxicating, curing, and song-giving. Mushroom fiends such as the Wassons are wont to argue that it is a mushroom. Some ayahuasca lovers note that MAO inhibitors and harmine containing plants are found all over the world, and produce evidence that *soma* is an ayahuasca analogue.⁷¹ There are even deranged metaphor abusers who think *soma* is a metaphor!

On the other side of the Indus, it was not *soma* but *huoma* the Zoroastrian magi were partial to. It was one of the two trees in the original garden of paradise, a tree with the gift of immortality.⁷² Many ancient tribes had myths bringing together a garden, a snake, a woman, and a tree with curious fruit, though the moralism and the fall come into it later. On ancient Greek depictions on vases, mushrooms grow from the base of the tree.⁷³ Of course, common knowledge has it that the fruit (or 'produced thing' in Hebrew) of the Tree of Knowledge was a deeply significant apple, but it doesn't sound like your typical Granny Smith. It sounds more like a Golden De-liberty cap gone wrong, the mind-fuck of a bad trip before the pulse of life begins to surge, a nightmare extended indefinitely. *YHVH*, as the master of the ego, fears nothing more than the destruction of the ego, so dissolution, illumination, or integration is not in His interests. He whisks the Tree of Life out of sight before the couple can eat it, but some other suspiciously psychedelic guides help the protagonists along their way.

Manna is called 'angel's food',⁷⁴ and there is evidence to suggest it is ergot. We might imagine *manna* falling like sacks of food aid, but in the text it is a secretion:

and when the layer of dew was gone up, behold upon the face of the wilderness a fine, scale-like thing, fine as the hoar-frost on the ground.⁷⁵

The word derives from the Arabic '*man*', a generic term for sticky, dewy substances which appear on plants, either secreted by the plant itself or by aphids.⁷⁶ In *Numbers*, '*manna* was like coriander seed, and the appearance thereof as the appearance of bdellium.'⁷⁷ Bdellium is also a resinous plant secretion; the line could also be translated '*manna* was like a shiny, resinous coriander seed'. *Exodus* gives a slightly different description; here *manna* is 'like coriander seed, white; and the taste of it was like wafers made with honey.'⁷⁸

Ergot infects coriander seeds, which grew wild and abundantly in the Middle East. In the early stages of infection, the seed exudes a sticky, sugary honeydew, which drips onto the surrounding leaves. Modern naturalists have described its 'white frosty appearance',⁷⁹ and a taste like honey,⁸⁰ as *manna* is described in *Exodus*. As the infection progresses, it quickly becomes toxic and begins to stink of fish, which also points to *manna*. Moses warned his people not to keep it overnight, and those who disobeyed found that it stank in the morning.⁸¹

In *Numbers*, 'the taste of it was as the taste of a cake baked with oil,' and we are told the Israelites baked it into cakes. Presumably it is not beyond the power of the deity to send ready-cooked meals, but this heavenly food had to be prepared before consumption. Did the priests

discover a process to control its toxicity whilst retaining its psychoactive properties? Hoffman, who did exactly that when he made LSD from ergot, wrote that such an operation was 'well within the range of possibilities open to Early Man'.⁸²

Manna sustained the tribe wandering towards the Holy Land for 40 years, a story which recalls the psychedelic journey in several key respects. When the boundaries melt and the psychonaut is released from the bondage of her conditioning, she may find herself lost in a boundless wilderness, with no more than a distant intuition that she is headed towards the Promised Land. Right at the beginning of the trip, the escapees are trapped with their Egyptian oppressors behind them (representing their conditioning), and impassable waters ahead (the depths of the unconscious), but dry land appears for them to pass through, and their conditioning is overwhelmed by the waters of the unconscious. The fugitives have no idea where they are going, but they are always led for the next few steps by a pillar of cloud by day and fire by night, sent by *YHVH*. Similarly, the psychonaut may be hard-pressed to cope with anything more than a few steps in front of her; all she can do is have faith and follow the signs. Finally there is the 40 years, during which everyone who knew bondage died in the wilderness, so only the newborn who do not know slavery reach the Promised Land.⁸³ Similarly, for the psychonaut to become truly free, everything old and conditioned must be left behind.ⁱ

In *The Bible*, visions are generally seen only by prophets, but the Lord appears collectively to the Israelites when they are eating *manna*, and in a truly synaesthetic manner: 'All the people **saw** the **sounds**, the flames, the blast of the ram's horn'.⁸⁴ After the wilderness, restrictions are introduced, and only the High Priest ate it, and only once a year. Seeing as *manna* stinks after one day, it seems likely that he was making it himself. He also guards it well, along with other items, behind a second veil in the tabernacle:⁸⁵

Which had the golden censer, and the ark of the covenant overlaid round about with gold, wherein was the golden pot that had *manna*, and Aaron's rod that budded, and the tables of the covenant; And over it the cherubims of glory shadowing the mercyseat; of which we cannot now speak particularly⁸⁶

ⁱ Note that the other major theme of this part of *The Bible* is the giving of the law, but we will see in *The Jerusalem Syndrome* that this is almost certainly a later addition to the original story of liberation, wandering and arriving.

NEURO-APOCALYPSE THREE

There are very few things of which we cannot speak in *The Bible*, but there is the scent of secrecy surrounding these mysteries. The High Priest went into 'the Holiest of All' to eat *manna* alone, whilst the other priests went into the less holy tabernacle together to eat bread:

And when Moses was gone into the tabernacle of the congregation to speak with him, then he heard the voice of one speaking unto him from off the mercy seat that was upon the ark of testimony, from between the two cherubims: and he spake unto him. And the Lord spoke unto Moses...⁸⁷

This is the shamanic format in many traditional societies, where the medicine man drinks ayahuasca or eats mushrooms alone, surrounded by his magickal objects, to contact the spirit world. After communication, Moses emerges with new instructions for the Israelites, as the shaman returns from his journey with guidance for the patient or the tribe.

Whilst the High Priest did his utmost to protect his recipe, the Lord doesn't seem to mind drug taking. In all the hundreds of Jewish laws, covering the minute details of daily life, and emphasising exactly what is and is not kosher, nowhere are drugs prohibited, as they are in the Koran and in the Buddhist precepts, for example. In *Genesis*, as Rastas are fond of repeating, herbs are provided 'for the service of man'.⁸⁸ 'And Gyad saah dat it waz good'.⁸⁹

Wipe away the dust of convention and there are plenty of good drugs in the Good Book. Rachel lets her rival sleep with their shared husband in return for mandrakes, which are a useless foodstuff but an excellent hallucinogen and aphrodisiac.⁹⁰ There is the intriguing acacia wood, from which the tabernacle is made, along with gold, gems, and fine cloth. Acacia wood was the sacred 'tree of life' in Egypt, associated with Osiris, who travelled to the underworld and back. It was part of the materia medica and materia magicka of the ancient Middle East, and used in work with spirits. It also contains DMT. *The Talmud* notes that the burning bush was thought to be acacia,⁹¹ and it earns a serenade:

Sing, O sing, acacia tree,
Ascend in all thy gracefulness.
With golden weave they cover thee,
The sanctuary-palace hears thy eulogy,
With divers jewels art thou adorned.⁹²

The word acacia derives from the word 'nonsense', which makes sense given the effects of DMT on the senses. Of course DMT would need to be cooked with an MAO inhibitor to be orally effective; one such plant is *peganum harmala*, which was used in the Middle East for its hallucinogenic properties and to exorcise evil spirits. There is still a huge field of it growing by the caves where the Essenes lived. There is no known mention of it in the Bible (though there are many plants we cannot identify because the Hebrew names have been forgotten). Its Arabic name, however, is *harmal*, meaning both 'sacred' and 'taboo'; the former meaning has been lost from Hebrew, it still means taboo.

This all smells as fishy as yesterday's *manna* to me, but there is something far more fragrant in the tabernacle. *Ktoret ha-samim* (literally 'the incense of drugs') is powerful stuff, which stays a plague when used respectfully in *Exodus*,⁹³ but is fatal when used without the proper protocol.⁹⁴ ⁹⁵ The secret recipe was kept by one family, and died with them in the destruction of the second temple, but it contained *kaneh bos* (fragrant cane), thought by etymologists and some rabbis to be the root of the Scythian word *kannabis*. As well as for cloth, the Scythians used ganja in funeral rites and at parties, where Herodotus reports that *kannabis* was 'thrown on the fire, and, their drunkenness increasing, they often jump up and begin to dance and sing'.⁹⁶ There was daily fragrant caning at the Jewish temple, but the incense was burned in the Holiest of Holies only once a year. There was some concern that the High Priest, who was also eating *manna* on that most holy of days, would be too high to keep it together; a chain was tied to his robe, so the people outside could tell if he stopped moving.⁹⁷ There are also three kilos of *kaneh bos* in the holy oil used to anoint priests and Messiahs (*mashiyach* means 'anointed one', something we return to in *The Mark of Zoroaster*).⁹⁸ The Christian Messiah went on to use the same recipe to baste and bake his followers.

Though both Judaism and Christianity were progressively purged of their power plants by priestly mores and translators' tricks, other sources tell tales. Josephus notes, for example, that the High Priest's ceremonial hat was decorated with a golden image of the henbane flower, another powerful psychedelic.⁹⁹ Imagine the Pope with a ganja leaf on his mitre? Today, sacred psychedelia is limited to a few underground sects, and mainstream priests keep their bongos hidden under the altar, but drug use is endemic outside the church. Things have reversed completely from the days when the High Priest's stash box was draped in purple linen and sealskins, overlaid with gold and set with stones. The prejudice set in much later, with the Age of Reason. Whereas one medieval rabbi considered psychedelics the purest of foods, and that the Tree of Life and *manna* were the best of the

bunch,¹⁰⁰ the joint is not passed around orthodox Jewish and Christian circles any more. An unsatisfying spice box passed around and inhaled at the close of Jewish Sabbath may be the last, faint memory of stronger spice

Dr. Shanon of Jerusalem University proposes that an ayahuasca analogue was responsible for Moses' visions on Mount Sinai, and he suggests that all visions in *The Bible* might be psychedelic experiences. Whilst this is entirely plausible, it might be a case of pharmacological reductivism. There are, after all, other ways of precipitating a mystical experience. Various Bible stories can be understood in terms of shifts between states of consciousness, though this does not necessarily mean that psychedelics caused the changes. Consciousness submerges into the unconscious in Noah's flood. It emerges, and attempts to build a frame at Babel, but different interpretations clash and confusion sets in. Finally Abram penetrates through the apparent divisions to access the powers behind them, to harness his will and fulfil his potential. The whole Pentateuch can be read as a story of mind expansion, but the mythology is potent without the admixture of drugs, and it might be simplistic to reduce *all* mystical experience to chemical processes.

Our natural potential is enormous. Psychedelics and concentration can unleash powers and wash away obstacles, but our most powerful ally is slithering through the darkness, shapeshifting and skin-shedding, cutting through limits with his sharp-toothed questions. What is true? What are we capable of? What are we waiting for? When we inquire beyond the limits of the known, mind over matter becomes possible, and even mind over time.

'Surely not?' thinks Adam, ashamed of his naked wand. And in which case, probably not.

'But what if?' comes a hiss from the undergrowth.

Not only do we see what we expect, but we also manifest the world we merit, according to the shape of our minds, according to the script we are following. We wade through Eros' molecular orgy, where cosmic vibrators buzz around a sea of electric love-juice, and unconscious currents course through the fluid. We are washed around by the tides, but will cut through, carving the void into shapes where chaos condenses, where the field flows and matter grows. The focused mind is a blade held steady between the vortexes, but without concentration it drifts into chaotic currents. When the knife cuts inwards at the self or stabs at its enemies, or when we blunt the edge in analysing the motives of soap opera characters, we achieve nothing. The conscious mind need not, and cannot grasp the unconscious, but it does direct

the knife. The thinker limits the magick, but he also channels the force. He can keep *YHVH's* destructive urges in check, and steer His momentum towards the infinite.

Man can make manifest whatever he directs his thoughts upon with concentrated attention',¹⁰¹ as Uncle Aldous used to say. Uncle Al, who is said to have introduced Uncle Aldous to mescaline in the first place, knew a little more about magick. He noted that we cannot make men from mushrooms. In magick, as in life, our intentions must be in harmony with the universe if we are to make anything more than trouble. With this in mind, we can take an active role in creation, pushing chance in our favour, defying space and time, outwitting even our own expansive egos.

In the beginning was the Word and the Tree of Knowledge, and the trip continues as the monkey climbs through the canopy, revealing the hidden, making conscious the unconscious. At the end of *The Apocalypse*, when heaven and earth and the illusion of duality pass away, we will reach into New Jerusalem with the fingers of our imagination, pluck the fruit of our destiny and bring it to invisible lips, to consume, and to be consumed.¹⁰²

Ye shall not surely die ... and ye shall be as gods¹⁰³

Ω

It is time to leave linguistics and psychology behind, and get out of our heads. The apocalypse occurs in our brains, but the same process happens in the world around us. For the rest of Part Two, we will explore how the it unfolds in the world, first in our history, and then in our future. But relax for the time being. The End is Nigh, but we still have time for a party.

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